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FEB 20 2004

PTO/SB/08a (08-03)

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U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

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Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet 1

of 12

Application Number	10/732,904
Filing Date	December 10, 2003
First Named Inventor	Kim, et al.
Group Art Unit	Unassigned 2818
Examiner Name	Unassigned
Attorney Docket Number	AMAT/6826.P1/DSM/BCVD/JW
Submission Date	February 18, 2004

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
PD ↑	A1	US-6,596,465	07/22/2003	Mangat, et al.	
	A2	US-6,573,030	06/03/2003	Fairbairn, et al.	
	A3	US-6,541,397B1	04/01/2003	Bencher	
	A4	US-6,514,667	02/04/03	Angelopoulos, et al.	
	A5	US-6,511,909	01/28/03	Yau, et al.	
	A6	US-6,511,903	01/28/03	Yau, et al.	
	A7	US-6,500,772	12/31/02	Chakravarti, et al.	
	A8	US-6,497,963	12/24/02	Grill, et al.	
	A9	US-6,492,731	12/10/02	Catabay, et al.	
	A10	US-6,489,233	12/03/02	Chooi, et al.	
	A11	US-6,485,815	11/26/02	Jeong, et al.	
	A12	US-6,482,754	11/19/02	Andideh, et al.	
	A13	US-6,479,409	11/12/02	Shioya, et al.	
	A14	US-6,479,408	11/12/02	Shioya, et al.	
	A15	US-6,479,407	11/12/02	Yokoyama, et al.	
	A16	US-6,479,110	11/12/02	Grill, et al.	
	A17	US-6,472,317	10/29/02	Wang, et al.	
PD	A18	US-6,472,264	10/29/02	Agarwal	

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁸
		Number-Kind Code ² (if known)				
PD ↑	B1	02/43119	05/30/02	WO		
	B2	01/01472	01/04/01	WO		
	B3	00/24050	04/27/00	WO		
	B4	00/19498	04/06/00	WO		
PD	B5	00/01012	01/06/00	WO		

Examiner

PHUC T. DANG

Date Considered

12/8/2004

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Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i>				Application Number	10/732,904
				Filing Date	December 10, 2003
				First Named Inventor	Kim, et al.
				Group Art Unit	Unassigned 2818
				Examiner Name	Unassigned
				Attorney Docket Number	AMAT/6826.P1/DSM/BCVD/JW
				Submission Date	February 18, 2004
Sheet	2	of	12		

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
PD ↑ ↓ PD	A1	US-6,472,231	10/29/02	Gabriel, et al.	
	A2	US-6,462,371	10/08/02	Weimer, et al.	
	A3	US-6,458,720	10/01/02	Aoi	
	A4	US-6,455,445	09/24/02	Matsuki	
	A5	US-6,448,186	09/10/02	Olson, et al.	
	A6	US-6,448,176	09/10/02	Grill, et al.	
	A7	US-6,441,491	08/27/02	Grill, et al.	
	A8	US-6,437,443	08/20/02	Grill, et al.	
	A9	US-6,432,417	08/13/02	Mellul, et al.	
	A10	US-6,428,894	08/06/2002	Babich, et al.	
	A11	US-6,417,098	07/09/02	Wong, et al.	
	A12	US-6,413,852	07/02/2002	Grill, et al.	
	A13	US-6,413,583	07/02/02	Moghadam, et al.	
	A14	US-6,410,463	06/25/02	Matsuki	
	A15	US-6,410,462	06/25/02	Yang, et al.	
	A16	US-6,383,955	05/07/02	Matsuki, et al.	
	A17	US-6,368,924	04/09/02	Mancini, et al.	
	PD	A18	US-6,348,725	02/19/02	Cheung, et al.

FOREIGN PATENT DOCUMENTS					T ⁶
Examiner Initials*	Cite No. ¹	Foreign Patent Document Number-Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	
PP ↑ ↓ PP	B1	99/55526	11/04/99	WO	
	B2	99/33102	07/01/1999	WO	
	B3	99/41423	08/19/99	WO	
	B4	99/38202	07/29/99	WO	
	B5	98/59089	12/30/98	WO	

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 3

of 12

Application Number	10/732,904
Filing Date	December 10, 2003
First Named Inventor	Kim, et al.
Group Art Unit	Unassigned 2818
Examiner Name	Unassigned
Attorney Docket Number	AMAT/6826.P1/DSM/BCVD/JW
Submission Date	February 18, 2004

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		Number-Kind Code ² (if known)			
PD	A1	US-6,348,421	02/19/02	Shu, et al.	
	A2	US-6,346,747	02/12/02	Grill, et al.	
	A3	US-6,340,628	01/22/02	Van Cleemput, et al.	
	A4	US-6,340,435	01/22/02	Bjorkman, et al.	
	A5	US-6,316,063	11/13/01	Andideh, et al.	
	A6	US-6,312,793	11/06/01	Grill, et al.	
	A7	US-6,303,523	10/16/01	Cheung, et al.	
	A8	US-6,287,990	09/11/01	Cheung, et al.	
	A9	US-6,265,779	06/24/2001	Grill, et al.	
	A10	US-6,258,735	07/10/01	Xia, et al.	
	A11	US-6,245,690	06/12/01	Yau, et al.	
	A12	US-6,238,751	05/29/01	Mountsier	
	A13	US-6,176,198	01/23/01	Kao, et al.	
	A14	US-6,159,871	12/12/00	Loboda, et al.	
	A15	US-6,147,407	11/14/00	Jin, et al.	
	A16	US-6,147,009	11/14/00	Grill, et al.	
	A17	US-6,140,226	10/31/00	Grill, et al.	
PD	A18	US-6,124,641	09/26/00	Matsura	

FOREIGN PATENT DOCUMENTS

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		Number-Kind Code ² (if known)				
PD	B1	98/08249	02/26/98	WO		
	B2	11-251293	09/17/99	JP		
	B3	10-242143	09/11/98	JP		
	B4	09-260369	10/03/97	JP		
	B5	09-251997	09/22/97	JP		

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PHUC T. DANG

Date Considered

12/8/2004

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		Filing Date	December 10, 2003
		First Named Inventor	Kim, et al.
		Group Art Unit	Unassigned 2818
		Examiner Name	Unassigned
		Attorney Docket Number	AMAT/6826.P1/DSM/BCVD/JW
Sheet 4	of 12	Submission Date	February 18, 2004

U.S. PATENT DOCUMENTS

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		Number-Kind Code ² (if known)			
PD	A1	US-6,093,973	07/25/00	Ngo, et al.	
	A2	US-6,080,526	06/27/00	Yang, et al.	
	A3	US-6,078,133	06/20/00	Menu, et al.	
	A4	US-6,072,227	06/06/00	Yau, et al.	
	A5	US-6,068,884	05/30/00	Rose, et al.	
	A6	US-6,054,379	04/25/00	Yau, et al.	
	A7	US-6,048,786	04/11/00	Kudo	
	A8	US-6,054,206	04/25/00	Mountsier	
	A9	US-6,051,321	04/18/00	Lee, et al.	
	A10	US-6,030,904	02/29/00	Grill, et al.	
	A11	US-6,037,274	03/14/00	Kudo, et al.	
	A12	US-6,007,732	12/28/99	Hashimoto, et al.	
	A13	US-5,998,100	12/07/99	Azuma, et al.	
	A14	US-5,989,998	11/23/99	Sugahara, et al.	
	A15	US-5,981,000	11/09/99	Grill, et al.	
	A16	US-5,926,740	07/20/99	Forbes, et al.	
	A17	US-5,891,799	04/06/99	Tsul	
PD	A18	US-5,888,593	03/30/99	Petrmichl, et al.	

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ³
		Number-Kind Code ² (if known)				
PD	B1	09-237785	09/09/97	JP		
	B2	09-064029	03/07/97	JP		
	B3	09-008031	01/10/97	JP		
	B4	01-125193	05/17/89	JP		
PD	B5	2000306999 (abstract)	11-02/00	JP		

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PHUC T. DANG

Date Considered

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**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

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Sheet 5

of 12

Application Number	10/732,904
Filing Date	December 10, 2003
First Named Inventor	Kim, et al.
Group Art Unit	Unassigned 2818
Examiner Name	Unassigned
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PD	A1	US-5,874,367	02/23/99	Dobson	
↑	A2	US-5,858,880	01/12/99	Dobson, et al.	
	A3	US-5,837,331	11/17/98	Menu, et al.	
	A4	US-5,834,162	11/10/98	Malba	
	A5	US-5,830,332	11/03/98	Babich, et al.	
	A6	US-5,821,168	10/13/98	Jain	
	A7	US-5,807,785	09/15/98	Ravi	
	A8	US-5,800,877	09/01/98	Maeda, et al.	
	A9	US-5,795,648	08/18/98	Goel, et al.	
	A10	US-5,789,319	08/04/98	Havemann, et al.	
	A11	US-5,780,874	07/14/98	Kudo	
	A12	US-5,773,199	06/30/98	Linliu, et al.	
	A13	US-5,753,564	05/19/98	Fukada	
	A14	US-5,753,319	05/19/98	Knapp, et al.	
	A15	US-5,750,316	05/12/98	Kawamura, et al.	
	A16	US-5,739,579	04/14/98	Chiang, et al.	
	A17	US-5,703,404	12/30/97	Matsuura	
PD	A18	US-5,700,720	12/23/97	Hashimoto	

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PD	B1	2 316 535	02/25/98	GB		
↓	B2	1 176 226 A1	01/30/02	EP		
	B3	1 123 991 A2	08/16/01	EP		
	B4	1 037 275 A1	09/20/00	EP		
PD	B5	0 935 283 A2	08/11/99	EP		

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PD	A1	US-5,693,563	12/02/97	Teong	
↑	A2	US-5,683,940	11/04/97	Yahiro	
	A3	US-5,679,413	10/21/97	Petmichl, et al.	
	A4	US-5,679,269	10/21/97	Cohen, et al.	
	A5	US-5,674,355	10/07/97	Cohen, et al.	
	A6	US-5,641,607	06/24/97	Ogawa, et al.	
	A7	US-5,638,251	06/10/97	Goel, et al.	
	A8	US-5,637,351	06/10/97	O'Neal, et al.	
	A9	US-5,618,619	04/08/97	Petmichl, et al.	
	A10	US-5,616,369	04/01/97	Williams, et al.	
	A11	US-5,599,740	02/04/97	Jang, et al.	
	A12	US-5,598,027	01/28/97	Matsuura	
	A13	US-5,593,741	01/14/97	Ikeda	
	A14	US-5,591,566	01/07/97	Ogawa	
	A15	US-5,559,367	09/24/96	Cohen, et al.	
	A16	US-5,494,712	02/27/96	Hu, et al.	
	A17	US-5,360,491	11/01/94	Carey, et al.	
PD	A18	US-5,298,587	03/29/94	Hu, et al.	

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PD	B5	0 926 724 A2	06/30/99	EP		
↑	B1	0 926 715 A2	06/30/99	EP		
	B2	0 960 958 A2	12/01/99	EP		
↓	B3	0 935 283 A2	08/11/99	EP		
PD	B4	0 885 983 A1	12/23/98	EP		

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PHVC T. DANG

Date Considered

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**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

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Sheet 7

of 12

Application Number	10/732,904
Filing Date	December 10, 2003
First Named Inventor	Kim, et al.
Group Art Unit	Unassigned 2818
Examiner Name	Unassigned
Attorney Docket Number	AMAT/6826.P1/DSM/BCVD/JW
Submission Date	February 18, 2004

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
PD	A1	US-5,186,718	02/16/93	Tepman, et al.	
↑	A2	US-4,486,286	12/04/84	Lewin, et al.	
	A3	US-2003/0111730A1	06/19/2003	Takeda, et al.	
	A4	US-2003/0091938	05/15/03	Fairbairn, et al.	
	A5	US-2003/0089988A1	05/15/2003	Matsuura	
	A6	US-2003/0020108	05/15/2003	Matsuura	
	A7	US-2003/0017718	01/23/03	Aoi	
	A8	US-2003/0003765A1	01/02/2003	Gibson, Jr., et al.	
	A9	US-2003/0001239	01/02/03	Gallahger, et al.	
	A10	US-2002/0198353	12/26/02	Chen, et al.	
	A11	US-2002/0192982	12/19/02	Andideh, et al.	
	A12	US-2002/0185741	12/12/02	Babich, et al.	
	A13	US-2002/0177329	11/28/02	Yang, et al.	
	A14	US-2002/0177303	11/28/02	Jiang, et al.	
	A15	US-2002/0173172	11/21/02	Loboda, et al.	
	A16	US-2002/0173157	11/21/02	Chang, et al.	
↓	A17	US-2002/0168870	11/14/02	Matsuki	
PD	A18	US-2002/0164891	11/07/02	Gates, et al.	

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ³
		Number-Kind Code ² (if known)				
PD	B1	0 849 769 A2	06/24/98	EP		
↑	B2	0 840 365 A2	06/05/98	EP		
	B3	0 826 791 A2	03/04/98	EP		
↓	B4	0 774 533 A1	05/21/97	EP		
PD	B5	0 771 886 A1	05/07/97	EP		

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PHUC T. DANG

Date Considered

12/8/2004

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**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

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Sheet 8

of 12

Application Number	10/732,904
Filing Date	December 10, 2003
First Named Inventor	Kim, et al.
Group Art Unit	Unassigned <u>2815</u>
Examiner Name	Unassigned
Attorney Docket Number	AMAT/6826.P1/DSM/BCVD/JW
Submission Date	February <u>18</u> , 2004

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
PD	A1	US-2002/0164868	11/07/02	Chang, et al.	
	A2	US-2002/0160626	10/31/02	Matsuki, et al.	
	A3	US-2002/0160604	10/31/02	Quek, et al.	
	A4	US-2002/0158337 A1	10/31/02	Babich, et al.	
	A5	US-2002/0127844 A1	09/12/02	Grill, et al.	
	A6	US-2002/0105084	08/08/02	Li	
	A7	US-2002/0098714	07/25/02	Grill, et al.	
	A8	US-2002/0098684	07/25/02	Li, et al.	
	A9	US-2002/0076944	06/20/02	Wang, et al.	
	A10	US-2002/0068458	06/06/02	Chiang, et al.	
	A11	US-2002/0055672	05/09/02	Zhang	
	A12	US-2002/0028392 A1	03/07/02	Jin, et al.	
	A13	US-2001/0022398	09/20/01	Grill, et al.	
	A14	US-2001/0021590	09/13/01	Matsuki	
	A15	US-2001/0005546	08/28/01	Cheung, et al.	
PD	A16	US-2001/0004479	06/21/01	Cheung, et al.	

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Number-Kind Code ² (if known)				
PD	B1	0 224 013	06/03/87	EP		
	B2	0 768 388 A2	04/16/97	EP		
	B3	0 696 819 A1	02/14/96	EP		
	B4	0 701 283 A2	03/13/96	EP		
	B5	199 04 311 A1	08/12/99	DE		
	B6	198 04 375 A1	01/07/99	DE		
PD	B7	196 54 737 A1	07/03/97	DE		

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Substitute for form 1449B/PTO		Application Number	10/732,904
INFORMATION DISCLOSURE STATEMENT BY APPLICANT		Filing Date	December 10, 2003
		First Named Inventor	Kim, et al.
		Group Art Unit	Unassigned 2818
		Examiner Name	Unassigned
		Attorney Docket Number	AMAT/6826.P1/DSM/BCVD/JW
(Use as many sheets as necessary)		Submission Date	February 18, 2004
Sheet	9	of	12

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
P D	C1	Robles, et al. <i>Characterization of High Density Plasma Chemical Vapor Deposited x-Carbon and x-Fluorinated Carbon Films for Ultra Low Dielectric Application</i> , February 10-11, 1997 DUMIC Conference, pgs. 26-33	
X	C2	Bar-Ilan, et al. <i>A Comparative Study of Sub-Micro Gap Filling and Planarization Techniques</i> , Tower Semiconductor Ltd., Israel, SPIE Vol. 2636, pgs. 277-288	
	C3	Hazari, et al., <i>Characterization of Alternative Chemistries for Depositing PECVD Silicon Dioxide Films</i> , Novellus Systems, Inc., San Jose, CA February 16-17, 1998, pgs. 319-326	
	C4	McClatchie, <i>Low Dielectric Constant Oxide Films Deposited Using CVD Techniques</i> , February 16-17, 1998 DUMIC Conference, pgs. 311-318	
	C5	Reif, et al., <i>Environmental, Safety, and Health Issues in IC Production</i> , Mat. Res. Soc. Symposium Proceedings Vol. 447, December 4-5, 1996 (6 pages)	
	C6	Laboda, et al., <i>Deposition of Low-k Dielectric Films Using Trimethylsilane</i> , Electro. Chem. Soc., Vol. 98-6, pgs. 145-152	
	C7	Zhao, et al., <i>Integration of Low Dielectric Constant Materials in Advanced Aluminum and Copper Interconnects</i> , Conexant Systems, 1999 pgs. 485-497	
	C8	Sugahara, et al., <i>Low Dielectric Constant Carbon Containing SiO₂ Films Deposited by PECVD Technique Using a Novel CVD Precursor</i> , February 10-11, 1997 DUMIC Conference, pgs. 19-25	
✓	C9	Nara, et al., <i>Low Dielectric Constant Insulator Formed by Downstream Plasma CVD at Room Temperature Using TMS/O₂</i> , ULSI Research Lab, November 14, 1996, pgs. 1477-1480	
P D	C10	Deen, et al. <i>Silicon Nitride and Silicon Dioxide Thin Insulating Films</i> , Dielectric Science and Tech and Electronics Div. Proceedings, Vol. 97-10, pgs. 443-453	

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Date Considered

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		Filing Date	December 10, 2003		
		First Named Inventor	Kim, et al.		
		Group Art Unit	Unassigned 2818		
		Examiner Name	Unassigned		
		Attorney Docket Number	AMAT/6826.P1/DSM/BCVD/JW		
Sheet	10	of	12	Submission Date	February 18, 2004

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PD	C11	Brown, <i>Dielectric Material Integration for Microelectronics</i> , Dielectric Science and Technology and Elect Divisions Proceedings, Vol. 98-3 (8 pages)	
	C12	Grill, et al., <i>Novel Low-k Dielectrics Based on Diamondlike Carbon Materials</i> , IBM Research Division, pgs. 1649-1653	
	C13	Lin, et al., <i>Plasma Polymerization of Trimethylsilane in Cascade Arc Discharge</i> , Dept. of Chem. Engineering and Center for Surface Science and Plasma Technology, University of Missouri-Columbia, February 4, 1997, pgs. 1653-1665	
	C14	Peters, <i>Pursuing the Perfect Low-K Dielectric</i> , 64 Semiconductor International, September 1998, (7 pages)	
	C15	Grill, et al., <i>Low Dielectric Constant Films Prepared by Plasma-enhanced Chemical Vapor Deposition from Tetramethylsilane</i> , IBM Research Division, pgs. 3314-3318	
	C16	Wrobel, et al. <i>Reactivity of Alkylsilanes and Alkylcarbosilanes in Atomic Hydrogen-induced Chemical Vapor Deposition</i> , Polish Academy of Sciences, Centre of Molecular and Macromolecular Studies, pgs. 1060-1065	
	C17	Mahorowala, et al., <i>Tunable Anti-Reflective Coatings with Built-in Hard Mask Properties Facilitating Thin Resist Processing</i> , Proceedings of SPIE, Vol. 4343 (2001) pgs. 306-316	
	C18	Singer (editor), <i>Anti-Reflective Coatings: A Story of Interfaces</i> , Semiconductor International, March 1999	
	C19	Taylor, et al., <i>Parylene Copolymers</i> , Texas Instruments, Inc., 1997, pgs. 1-9	
PD	C20	Grill, et al., <i>Diamondlike Carbon Materials as Low-k Dielectrics</i> , Mat. Res. Soc., 1997, pgs. 417-423	

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Substitute for form 1449B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)		Application Number	10/732,904
		Filing Date	December 10, 2003
		First Named Inventor	Kim, et al.
		Group Art Unit	Unassigned 2818
		Examiner Name	Unassigned
		Attorney Docket Number	AMAT/6826.P1/DSM/BCVD/JW
Sheet 11	of 12	Submission Date	February 18, 2004

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
PD ↑	C21	Wu, et al "Advanced Metal Barrier Free Cu Damascene Interconnects with PECVD Silicon Carbide Barriers for 90/65-nm BEOL Tech", 2002 IEEE, IEDM P 595-598.	
	C22	Licata, et al. "Dual Damascene Al Wiring For 256M DRAM; June 27-29, 1995 VMIC Conference, 1995 ISMIC - 104/95/0596	
	C23	Endo, Kazuhiko; and Tatsumi, Toru, "Preparation and Properties of Fluorinated Amorphous Carbon Thin Films by Plasma Enhanced Chemical Vapor Deposition", Mat. Res. Soc. Symp. Proc. Vol. 381, 1995	
	C24	Nguyen, et al. "A Novel Damascene Process for One Mask Via/Interconnect Formation", 1996 Symposium on VLSI Tech Digest of Technical Papers.	
	C25	Lakshminarayanan, et al., "Contact and Via Structures with Copper Interconnects Fabricated Using Dual Damascene Technology", IEEE Electron Device Letters, Vol. 15, No. 8, August 1994.	
	C26	Grill, et al. "Diamondlike Carbon Films by rf plasma assisted chemical vapor deposition from acetylene", IBM J. Res. Dev. Vol. 34 No. 6 Nov. 1990.	
	C27	Kaanta, et al., "Dual Damascene: A ULSI Wiring Technology", June 11-12, 1991 VMIC Conference, TH-0359-0/91/0000-0144.	
	C28	Hasegawa, et al. "Copper Dual Damascene Interconnects with Low-K ($K_{eff} < 3.0$) Dielectrics Using Flare [®] and an Organo-Silicate Hard Mask", LSI Business & Technology Development Group, C.N.C. Sony Corporation; IEDM 99-623; pgs 26.4.1 - 26.4.4	
	C29	U.S. Application 10/375,852 filed on February 25, 2003.(AMAT/2592.C5)	
PD ↓	C30	U.S. Application 10/196,498 filed on July 15, 2002 (AMAT/6084)	

Examiner

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Date Considered

12/8/2004

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**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Sheet 12

of 12

Application Number

10/732,904

Filing Date

December 10, 2003

First Named Inventor

Kim, et al.

Group Art Unit

~~Unassigned~~ 2818

Examiner Name

Unassigned

Attorney Docket Number

AMAT/6826.P1/DSM/BCVD/JW

Submission Date

February 18, 2004

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
PD	C31	U.S. Application 10/247,404 filed on June 19, 2002 (AMAT/6084.P1)	
	C32	U.S. Application 10/096,503 filed on March 12, 2002 (AMAT/6084.02)	
	C33	U.S. Application 09/627,667 filed on July 28, 2000. (AMAT/4683)	
PD	C34	U.S. Application 10/122,106 filed on April 11, 2002. (AMAT/6166)	
	C35		
	C36		
	C37		
	C38		
	C39		
	C40		
	C41		

Examiner

PHUC T. DANG

Date Considered

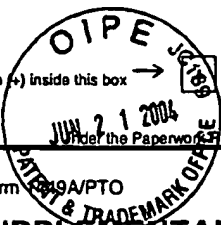
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SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 1

of 2

Application Number	10/732,904
Filing Date	DECEMBER 10, 2003
First Named Inventor	KIM, ET AL.
Group Art Unit	2818
Examiner Name	UNKNOWN
Attorney Docket Number	AMAT/6826.P1/DSM/BCVD/JW
Submission Date	June 16, 2004

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
PD ↑ ↓	A1	US-6,720,251 B1	04/13/2004	Van Schravendijk, et al.	
	A2	US-6,500,773 B1	12/31/2002	Gaillard, et al.	
	A3	US-6,340,628 B1	01/22/2002	Van Cleemput	
	A4	US-6,252,295 B1	06/26/2001	Levine, et al.	
	A5	US-6,156,674	12/05/2000	Li, et al.	
	A6	US-2002/0172766 A1	11/21/2002	Laxman, et al.	
	A7	US-2003/0064154 A1	04/03/2003	Laxman, et al.	
PD	A8	US-6,340,628 B1	01/22/2002	Van Cleemput	
	A9	US-			
	A10	US-			
	A11	US-			
	A12	US-			
	A13	US-			
	A14	US-			
	A15	US-			
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FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³ -Number ⁴ -Kind Code ⁵ (if known)				
PD	B1	EP 1 209 728 A2	05/29/2002	Ellie Yieh		
PD	B2	EP 1 061 156 A2	12/20/2000	Judy Huang		
	B3					
	B4					

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